

REMARKS

Summary of Office Action

Claims 1-87 are pending in this application. Claims 10-30, 40, 48-65, 78-80, 82, and 87 have been withdrawn pursuant to a species election.

The Examiner found applicant's arguments in the April 12, 2007 Remarks For Pre-Appeal Brief Conference persuasive and has withdrawn the finality of the last Office Action. The Examiner has now rejected the claims based on the following new grounds:

Claims 1-4, 7, 31-34, 41-45, 47, 66-69, 72-77, 81, and 83-86 were rejected under 35 U.S.C. §103(a) as being obvious from Standerwick et al. U.S. Patent No. 3,072,118 (hereinafter "Standerwick") in view of Farley et al. U.S. Patent No. 6,663,630 (hereinafter "Farley"). Dependent claims 5, 6, and 46 were rejected under 35 U.S.C. §103(a) as being obvious from Standerwick in view of Farley and Carol U.S. Patent No. 4,955,891 (hereinafter "Carol"). Dependent claims 8, 9, and 37-39 were rejected under 35 U.S.C. §103(a) as being obvious from Standerwick in view of Farley and Letendart et al. U.S. Patent No. 6,432,109 (hereinafter "Letendart"), and dependent claims 35, 36, 70, and 71 were rejected under 35 U.S.C. §103(a) as being obvious from Standerwick in view of Farley and Bittner, Jr. U.S. Patent No. 2,055,024 (hereinafter "Bittner").

Summary of Applicant's Reply

Applicant has amended independent claim 1 to more particularly point out and distinctly claim the subject matter that applicant regards as the invention.

Application No. 10/783,233
September 6, 2007 Reply To Office Action

Applicant has amended independent claim 72 to replace the term of art "reduce" with equivalent language, "pull ... toward the reduction platform." No new matter has been added.

Reconsideration of this application in view of the following remarks is respectfully requested.

Rejections of Claims Under 35 U.S.C. § 103(a)

Claims 1-4, 7, 31-34, 41-45, 47, 66-69, 72-77, 81, and 83-86 were rejected under 35 U.S.C. §103(a) as being obvious from Standerwick and Farley.

These rejections are respectfully traversed.

Independent Claim 1

Amended independent claim 1 defines a fragment manipulator having a "bone engaging end configured to ... attach to a bone fragment such that the bone fragment can be pulled toward the reduction platform to reduce the fracture as the fragment manipulator translates through the receiving hole" (emphasis added).

Standerwick does not disclose fixation apparatus that can reduce bone fractures. In particular, Standerwick does not disclose that any of its mounting, fixing, or stabilizing pins are configured to pull a bone fragment upward.

Farley also does not disclose fixation apparatus that can reduce bone fractures. Instead, Farley discloses a fixation system that uses bone screws to rigidly attach the fixation apparatus to a patient's skull.

Farley's bone screws have a threaded distal tip that engages the skull until a shoulder on the screw engages the skull to prevent penetration (see, e.g., column 7, lines 19-25:

"distal tip 44 is threaded for engagement with the patient's skull.... shoulder 42 is drawn up against the skull as the threads on the distal tip 44 engage the skull, thereby preventing penetration").

Farley is silent as to whether or not its bone screws can be used for bone fracture reduction. Applicant points out that not all bone screws are capable of being used to reduce bone fractures.

Moreover, the shoulders on Farley's bone screws may prevent the distal tip of the screws from being screwed in far enough into the skull to be used for bone fracture reduction.

Thus, the combination of Standerwick and Farley does not result in a fracture reduction assembly having a fragment manipulator with a bone engaging end configured to attach to a bone fragment such that the bone fragment can be pulled to reduce the fracture.

Therefore, independent claim 1 is not obvious from that combination and should be allowable.

Independent Claim 41

Similarly, independent claim 41 defines a fragment manipulator that has "a bone engaging end having a thread attachable to a bone fragment such that the bone fragment can be pulled toward the reduction platform as the fragment manipulator translates" (emphasis added).

For the reasons discussed above with respect to claim 1, the combination of Standerwick and Farley does not disclose or suggest a fragment manipulator having such a bone engaging end. Thus, the combination of Standerwick and Farley does not render obvious applicant's claim 41.

Independent Claim 72

Independent method claim 72 has been amended to recite the following:

“locating at least a portion of a bone to be reduced;” and

“continuing to rotate the nut so that the fragment manipulator is drawn up through the nut to pull the located bone portion attached to the fragment manipulator toward the reduction platform.”

Emphasis added.

As discussed above, Standerwick does not disclose a method of craniofacial reduction. In particular, Standerwick discloses nothing about locating a portion of a bone to be reduced and rotating a nut to pull up a fragment manipulator to pull the located bone portion toward a reduction platform.

Similarly, Farley also does not disclose a method of craniofacial reduction. Nor does Farley disclose locating a portion of a bone to be reduced and rotating a nut to pull up a fragment manipulator to pull the located bone portion toward a reduction platform.

Moreover, there is nothing in Standerwick or Farley to even suggest that their respective apparatuses could be used to perform a method of craniofacial reduction.

Thus, the combination Standerwick and Farley does not result in applicant's method as defined in claim 72.

Therefore, independent claim 72 is not obvious from that combination and should be allowable.

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In sum, the combination of Standerwick and Farley does not meet the limitations of either independent claim 1, 41, or 72. Therefore, these claims are not obvious from that combination and should be allowable.

For at least the above reasons, dependent claims 2-4, 7, 31-34, 42-45, 47, 66-69, 73-77, 81, and 83-86, which each depend either directly or indirectly from independent claim 1, 41, or 72, should also be allowable (i.e., dependent claims are allowable if their independent claim is allowable).

Accordingly, applicant respectfully requests that the rejections of claims 1-4, 7, 31-34, 41-45, 47, 66-69, 72-77, 81, and 83-86 under 35 U.S.C. §103(a) be withdrawn.

Rejections of Dependent Claims Under 35 U.S.C. § 103(a)

Dependent claims 5, 6, and 46 were rejected under 35 U.S.C. §103(a) as being obvious from Standerwick in view of Farley and Carol; dependent claims 8, 9, and 37-39 were rejected under 35 U.S.C. §103(a) as being obvious from Standerwick in view of Farley and Letendart; and dependent claims 35, 36, 70, and 71 were rejected under 35 U.S.C. §103(a) as being obvious from Standerwick in view of Farley and Bittner.

These rejections are respectfully traversed.

For at least the reasons discussed above with respect to independent claims 1, 41, and 72, dependent claims 5, 6, 8, 9, 35-39, 46, 70, and 71, which each depend directly or indirectly from one of the independent claims, are not obvious from any combination of Standerwick, Farley, Carol, Letendart, and Bittner (i.e., dependent claims are allowable if their independent claim is allowable).

Moreover, claim 6 defines a bone engaging end having a first portion having threads that increase in diameter and a second portion having uniform diameter threads. Neither Standerwick, Farley, Carol, Letendart, nor Bittner discloses or suggests such a bone engaging end. For example, Carol merely shows self-tapping screws 208 as having simple pointed tips (see Carol's FIG. 9 and 14) and is silent as to its construction. Any assertion by the Examiner that Carol's self-tapping screws 208 have a first portion having threads that increase in diameter and a second portion having uniform diameter threads is pure speculation not supported by any facts or evidence. Accordingly, claim 6 is also not obvious for those reasons.

Accordingly, applicant respectfully requests that the rejections of claims 5, 6, 8, 9, 35-39, 46, 70, and 71 under 35 U.S.C. §103(a) be withdrawn.

Withdrawn Dependent Claims 10-30, 40, 48-65, 78-80, 82, and 87

Dependent claims 10-30, 40, 48-65, 78-80, 82, and 87 were withdrawn from consideration pursuant to a species election.

Applicant respectfully requests that these dependent claims be rejoined to the application in view of the allowability of their respective independent claim and submit that these claims are also allowable (i.e., dependent claims are allowable if their independent claim is allowable).

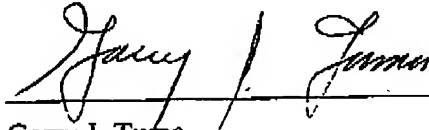
Conclusion

The foregoing demonstrates that claims 1-9, 31-39, 41-47, 66-77, 81, and 83-86 are allowable. Therefore, subject to disposition of withdrawn claims 10-30, 40, 48-65, 78-80,

Application No. 10/783,233
September 6, 2007 Reply To Office Action

82, and 87, this application is in condition for allowance. Reconsideration and allowance are accordingly respectfully requested.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Garry J. Tuma", written over a horizontal line.

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